

Conference Abstract

Integration of Ecosystem Services and Habitats into the Biodiversity Atlas Austria

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Abstract

The Biodiversity Atlas Austria (“Biodiversitäts-Atlas Österreich”) is a data portal to explore Austria’s biodiversity. It is based on the open-source infrastructure of the Atlas of Living Australia (ALA) and was launched with support of the Living Atlas (LA) community in late 2019 by the Biodiversity Hub of the University of Continuing Education Krems funded by the Government of Lower Austria. At present, it stores more than 8.5 million species occurrence records from various data partners and institutions and is available in both English and German. The Atlas is running on two virtual machines with 4 TB storage and is hosting many of the ALA-developed tools and services such as collectory, biocache, biodiversity information explorer, regions, spatial portal, sensitive data service, lists, images, and dashboard.

In the project “ÖKOLEITA” (2021-2023), two new tools were developed within the existing LA infrastructure and will be launched in late 2023 to allow users to deal with ecosystem services and habitat data.

The “ecosys”-tool will allow management, visualization, and analysis of ecosystem services by uploading different (raster or vector) TIFF files containing mapped ecosystem services to the geoserver. Users will be able to inspect various ecosystem services at a specific geolocation or compare different geolocations or a transect on their respective ecosystem service potential. The ecosystem service values are presented on the one hand

as pictograms, where the value is transformed into quintiles, orienting on the work by Schreder et al. (2018), and as bar chart showing the true values.

The “habitat” tool will store and manage datasets of habitat mappings (shapefiles) and allow users to spatially explore those various habitat mappings on a map. Users will be able to search for specific habitats across all datasets or a specific one and get all occurrences of this habitat type returned. Through linkage to the biocache, a click on a specific area reveals the list of species found within that habitat recording, as well as all the species occurrences within that area stored in the database. A “habitat backbone” of the most used habitat classifications in Austria will allow dealing with habitat mappings that use different classifications.

Both tools are integrated into the Living Atlases infrastructure and communicate with the other tools and services of the Biodiversity Atlas Austria (Fig. 1). They share a common administration back-end but have different front-ends, where the users can explore the ecosystem services and habitats spatially and in connection with species occurrence records and other contextual information.

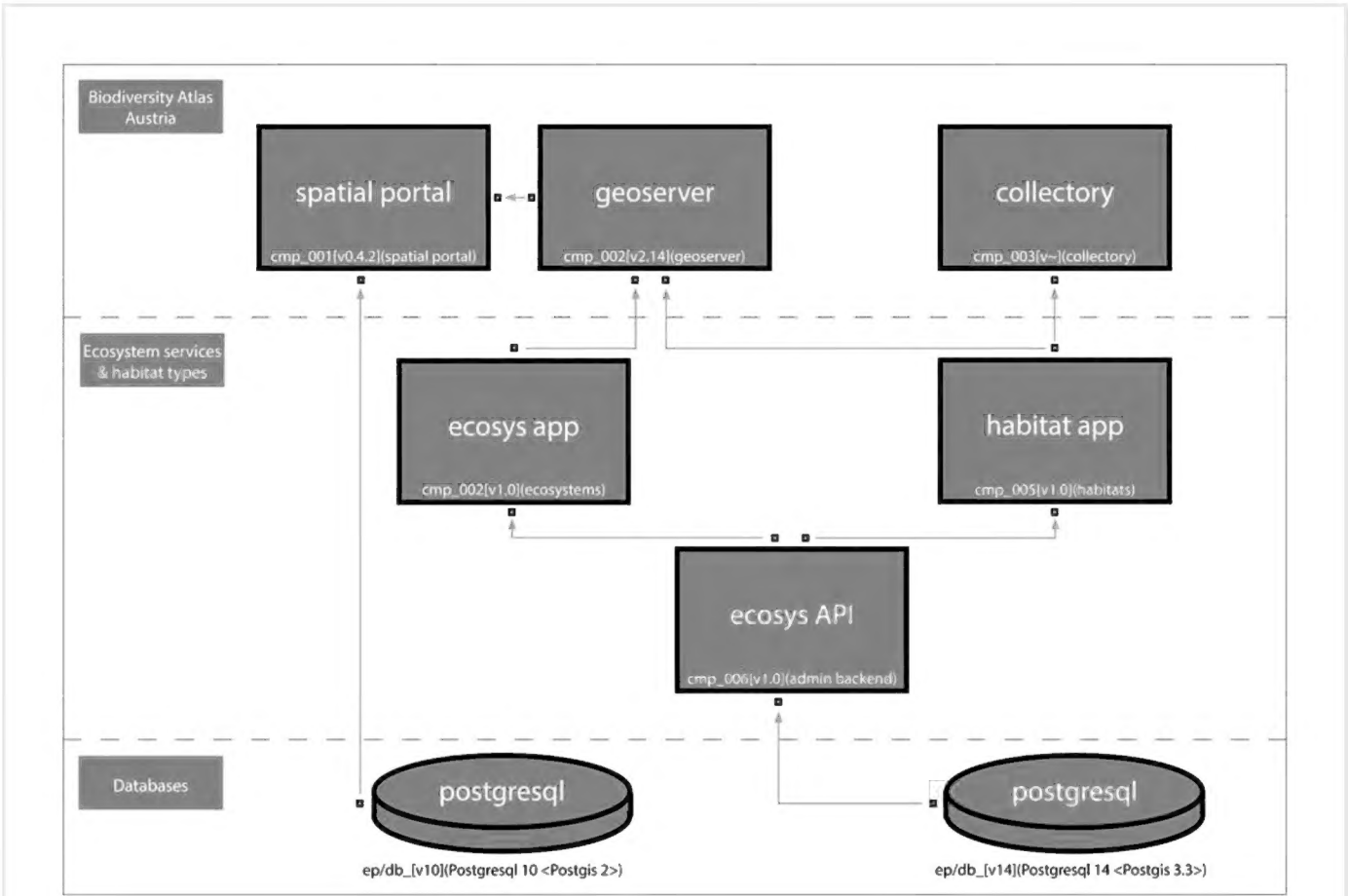


Figure 1.
Component diagram of the ecosys- and habitat-tool within the Biodiversity Atlas Austria portal infrastructure. Figure by Georg Neubauer.

Keywords

Living Atlas, biodiversity database, habitat mapping

Presenting author

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Conflicts of interest

The authors have declared that no competing interests exist.

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